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09/736,661	12/14/2000	Arturo A. Rodriguez	A-6280	8279

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Scientific-Atlanta, Inc.
Intellectual Property Department
One Technology Parkway, South
Norcross, GA 30092-2967

EXAMINER

AN, SHAWN S

ART UNIT

PAPER NUMBER

2613

DATE MAILED: 03/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/736,661

Applicant(s)

Rodriguez et al.

Examiner

Shawn An

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (e). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jan 6, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 and 32-45 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30, 32-36, and 40-45 is/are rejected.
- 7) ☒ Claim(s) 37-39 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 8 6) ☐ Other:

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DETAILED ACTION

Request for Continued Examination

1. The request filed on 1/6/2003 for a Request for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application No. 09/736,661 is acceptable and a RCE has been established. An action on the RCE follows.

Response to Amendment

2. As per Applicant's instructions in Paper 12 as filed on 1/6/2003, claims 1, 26-29, 32-40, and 43 have been amended. Furthermore, the Applicant's REMARKS concerning all of the amended claims are addressed below as rejections.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

4. Claims 1, 3-11, 15-16, 18, 21, 25-26, and 28-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Kalra et al (5,953,506).

Regarding claims 1, 15-16, 21, 25-26, and 29-30, Kala et al disclose a video decoding method and a video decoding system/device for adapting to resource constraints, comprising the steps of:

receiving video input (Fig. 9A) by a decoding device (102);

memory (Fig. 10, 300) for storing video input received by the decoding device;

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decoding a first portion of the video input at a first video decoding rate, and determine the decoding rate should be reduced (lower rate), and decoding a second portion of the video input at a second decoding rate while maintaining synchronization with the audio decoding rate (Figs. 9A-9C (elements 124A-C), 16A3; col. 17, lines 25-55);

determination logic by the decoding device configured to determine whether a resource constrained mode is to be initiated (col. 17, lines 25-55); and

initiation logic by the decoding device configured to initiate the resource constrained mode responsive to the determination logic, including foregoing decoding of portions of the video input (Fig. c; col. 17, lines 56-67; col. 18, lines 1-24) received by the decoding device.

Regarding claims 3, 18, and 28, Kala et al disclose inadequate bandwidth availability (col. 17, lines 10-24).

Regarding claims 4 and 5, Kala et al disclose an user interaction (col. 2, lines 18-50, adapting profiles).

Regarding claim 6, Kala et al disclose reducing spatial resolution of video output (Fig 28; col. 3, lines 60-62).

Regarding claim 7, Kala et al disclose user interaction (User Profiles) causing graphics to be generated and output along with the video output (Fig. 2B).

Regarding claim 8, Kala et al disclose receiving from a video transmitter data describing the received video input (20).

Regarding claim 9, Kala et al disclose MPEG (Fig. 5).

Regarding claims 10 and 11, Kala et al disclose decoding B and P frames (Fig. 9A, 102).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kalra et al (5,953,506) in view of Tan et al (5,959,684).

Regarding claim 32, Kalra et al disclose a video decoding method, comprising the steps of: receiving video input (Fig. 9A) by a decoding device (102); and determining by the decoding device that at least one resource is constrained (col. 17, lines 25-55);

Kalra et al does not specifically disclose initiating a mode of repeating pictures responsive to the resource being constrained.

However, Tan et al discloses well known concept of repeating pictures (frames) responsive to the resource being constrained (col. 3, lines 25-29).

Therefore, it would have been obvious to a person of ordinary skill in the relevant art employing a video decoding method as taught by Kalra et al to incorporate the concept of repeating pictures responsive to the resource being constrained as taught by Tan et al in order to synchronize output pictures of audio and video.

7. Claims (2, 17), and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalra et al (5,953,506) as applied to claims 1 and 26 above, respectively, and further in view of Cismas (5,646,693).

Regarding claims 2, 17, and 27, Kalra et al disclose determining the resource constraint being initiated responsive to inadequate bandwidth availability (col. 17, lines 10-24).

Kalra et al does not particularly disclose determining the resource constraint being initiated responsive to inadequate memory availability.

However, it is well known in the art to compensate for a limited memory resource.

Cismas teaches memory utilization for video decoding (Abs).

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Therefore, it would have been obvious to a person of ordinary skill in the relevant art employing a video decoding system as taught by Kalra et al to incorporate the concept of compensating for a limited memory resource as taught by Cismas for determining the resource constraint being initiated responsive to inadequate memory availability.

8. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalra et al (5,953,506) as applied to claim 1 above, and further in view of Tan et al (5,959,684).

Regarding claim 12, Kalra et al disclose foregoing decoding of a plurality of frames (Fig. 9C).

Kalra et al does not specifically disclose repeating presentations of decoded frames.

However, Tan et al discloses well known concept of repeating presentations of decoded frames (col. 3, lines 4-29).

Therefore, it would have been obvious to a person of ordinary skill in the relevant art employing a video decoding system as taught by Kalra et al to incorporate the concept of repeating presentations of decoded frames as taught by Tan et al for repeating presentations of decoded frames to a user in place of the plurality of frames that are not decoded in order to synchronize output pictures of audio and video.

Regarding claims 13 and 14, decoded frames comprises I, P, and B frames. Therefore, it is considered an obvious feature to repeat either I, P, or B frames.

9. Claims 19-20 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalra et al (5,953,506).

Regarding claims 19-20, utilizing look-up-table (col. 11, lines 1-17) and a record keeping of a history of resource need are conventionally well known the art.

Therefore, it is considered a quite obvious feature to determine the amount of additional resource according to a look-up-table or a history of resource need.

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Regarding claim 22, not only it's obvious to maintain existing resource priorities controlling devices using the resources, Kalra et al always maintains resource priorities.

Regarding claim 23, note that Kalra et al's system can be used in a home computer for viewing videos by an user.

Regarding claim 24, nowhere in Kalra's reference suggests or discloses de-synchronizing audio and video data during the resource constrained mode.

10. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kalra et al (5,953,506) as applied to claim 1 above, and further in view of Casavant et al (5,426,464).

Regarding claim 33, Kalra et al does not specifically disclose having a first picture rate and a second picture rate that is higher than the first picture rate.

However, Casavant et al discloses the well known concept of 3:2 pull-down (24 to 60 Hertz) method, that effectively teaches having a first picture rate (24 Hertz) and a second picture rate (60 Hertz) that is higher than the first picture rate (col. 1, lines 44-68).

Therefore, it would have been obvious to a person of ordinary skill in the relevant art employing a method for adapting to resource constraints as taught by Kala et al to incorporate the concept of having a first picture rate (24 Hertz) and a second picture rate (60 Hertz) that is higher than the first picture rate as taught by Casavant et al in order to effectively convert from film to video for a display on television.

11. Claims 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalra et al and Casavant et al as applied to claim 33 above, and further in view of Tan et al (5,959,684).

Regarding claim 34, Kala et al does not specifically disclose repeating presentations of decoded frames.

However, Tan et al discloses well known concept of repeating presentations of decoded frames (col. 3, lines 4-29).

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Therefore, it would have been obvious to a person of ordinary skill in the relevant art employing a method for adapting to resource constraints as taught by Kala et al to incorporate the concept of repeating presentations of decoded frames as taught by Tan et al for repeating presentations of a decoded picture in place of a picture that is not decoded in order to synchronize output pictures of audio and video.

Regarding claim 35, it is considered an obvious feature to repeat only five times if a subsequent picture is not decoded (design choice).

Regarding claim 36, Casavant discloses a first picture rate (24 Hertz) and a second picture rate (60 Hertz) that is higher than the first picture rate (col. 1, lines 44-68).

12. Claims 40-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalra et al (5,953,506) in view of Casavant et al (5,426,464) and Tan et al (5,959,684).

Regarding claim 40 and 42, Kalra et al discloses a method for adapting to resource constraints, comprising the steps of:

receiving video input (Fig. 9A) by a decoding device (102);

determining by the decoding device whether a resource constrained mode is to be initiated (col. 17, lines 25-55); and

initiating by the decoding device the resource constrained mode responsive to determining the resource constrained mode is to be initiated, including foregoing decoding of portions of the video input received (Fig. c; col. 17, lines 56-67; col. 18, lines 1-24).

Kalra et al does not specifically disclose having a first picture rate and a second picture rate that is higher than the first picture rate.

However, Casavant et al discloses the well known concept of 3:2 pull-down method, that effectively teaches having a first picture rate (24 Hertz) and a second picture rate (60 Hertz) that is higher than the first picture rate (col. 1, lines 44-68).

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Kalra et al also does not specifically disclose repeating presentations of decoded frames (pictures). However, Tan et al discloses well known concept of repeating presentations of decoded pictures (col. 3, lines 24-29).

Therefore, it would have been obvious to a person of ordinary skill in the relevant art employing a method for adapting to resource constraints as taught by Kala et al to incorporate the concept of repeating presentations of decoded frames as taught by Tan et al for repeating presentations of a decoded pictures in place of a picture that is not decoded for synchronizing output pictures of audio and video, and also incorporate the concept of having a first picture rate (24 Hertz) and a second picture rate (60 Hertz) that is higher than the first picture rate as taught by Casavant et al in order to effectively convert from film to video for a display on television.

Regarding claim 41, it is considered an obvious feature (design choice) to repeat only five times if a subsequent picture is not decoded.

Regarding claim 43, having an interlaced video picture output having a first set (odd fields) and a second set of display fields (even fields) are inherent features.

13. Claims 44-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalra et al (5,953,506) as applied to claim 43 above, and further in view of Boussina et al (4,216,504).

Regarding claim 44-45, Kalra et al does not specifically disclose a well known concept of copying from the content of the first set of display fields to the second set of display fields.

However, Boussina et al teaches repeating (copying) fields (col. 9, lines 12-38).

Therefore, it would have been obvious to a person of ordinary skill in the relevant art employing a method for adapting to resource constraints as taught by Kalra et al to incorporate the concept of repeating (copying) fields as taught by Boussina et al so that the content of the second set of display fields is copied from the content of the first set of display fields in order to avoid jitter artifacts.

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Allowable Subject Matter

14. Claims 37-39 are objected to as being dependent upon a rejected base claim 1 but would be allowable: if claim 37 is rewritten in independent form including all of the limitations of the base claim 1. Dependent claims 37-39 recite the novel features comprising the step of: retrieving a first set of video data from a memory component, wherein the first set of video data corresponds to a first video picture; scaling the first set of video data into a second set of video data corresponding to a second video picture that is smaller than the first video picture; transmitting the second set of video data to a display device, wherein the second set of video data is not stored in the memory component prior to being transmitted; and transmitting graphics data to the display device, wherein the graphic data is displayed contemporaneously with the second set of video data.

The art of record fails to anticipate or make obvious the novel feature as specified in these dependent claims. Accordingly, if the amendments are made to the claims listed above, and if rejected claims are canceled, the application would be placed in condition for allowance.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

A) Wang et al (6,434,197 B1), Multi-functional transcoder for compressed bit streams.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shawn An whose telephone number (703) 305-0099 and schedule are Tuesday through Friday.



SSA

March 20, 2003

SHAWN AN
PATENT EXAMINER

SHAWN AN
PATENT EXAMINER